

NU-01013  
Amendment dated 11/1/4

09/824,033

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Reply to office action mailed 08/24/2004

**REMARKS**

Claims 1-15 are currently pending in the application. By this amendment, claims 1 and 15 are amended for the Examiner's consideration. Minor amendments have been made to claims 2, 4, 6, 8, 10 and 12. The foregoing separate sheets marked as "Listing of Claims" shows all the claims in the application, with an indication of the current status of each .

In the specification, the paragraphs beginning at page 1, line 6; page 1, line 13; page 2, line 8; page 3, line 2; page 4, line 17; page 5, line 6; page 5, line 19; and page 7, line 1, have been amended to correct syntax and translation errors. No new matter has been added.

Fig. 3 has been amended to replace "SHIFT STORAGE" in item 11 with "SIR STORAGE" in conformity with the description at page 8, lines 5-8, and the comparable SIR storage 31 element in Fig. 7.

The Examiner's indication that claims 2-14 contain allowable subject matter is acknowledged with appreciation.

The Examiner has rejected claims 1 and 15 under 35 U.S.C. §102(a) as being anticipated by the admitted prior art disclosed in Figs 1 and 2. In the prior art, as described in the specification, the power level of a mobile station is controlled in the following manner, using the output of a Signal-to-Interference Ratio (SIR) calculator for each slot  $n$ , or  $SIR(n)$ , in comparison to a reference SIR, or  $R_{fsir}$ : under the prior art logic, if  $SIR(n)$  is greater than  $R_{fsir}$ , then a "power-down" command is issued; if  $SIR(n)$  is less than  $R_{fsir}$ , then a "power-up" command is issued. This logic has the adverse result of a) sharply increasing the power level of a mobile station whose signal is fading or temporarily blocked, and b) consequently reducing the carrying capacity of the CDMA system.

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The invention provides a mechanism (embodied in a command generating circuit 100, 100A and 100B) for avoiding these adverse consequences. As described in connection with Figures 3, 5 and 7 (and corresponding logic flows shown in Figures 4, 6 and 8), it should be noted that while the prior art SIR calculator 7 and comparator 8 are retained, the invention provides a new logic, which determines whether the prior art signal (output of comparator 8, the transmission power control command) or a transmission power control-OFF command is inserted into the radio frame to be sent to the mobile station. The invention generates the transmission power control-OFF command when the SIR continuously decreases over a preselected number of slots (i.e.  $Sttpc$ ). When the transmission power control-OFF command is generated, it is used in place of the prior art transmission power control command. As a result, contrary to the prior art, sharply increasing power levels for a fading mobile station are avoided, thereby also avoiding increased interference levels and reductions in system capacity leading to CDMA system failure.

This new logic is not present in the prior art, as evident in Figures 1 and 2. In particular, it will be noted that the prior art figures do not show generation of the transmission power control-OFF command, which is described in claims 1 and 15. Consequently, claims 1 and 15 have been amended to correct an unclear translation that confused the prior art transmission power control command and the transmission power control-OFF command of the invention. The clarified structure of these claims shows that while the invention continues to use the prior art transmission power control command, generation and use of the new transmission power control-OFF command provides a clear advance over the prior art.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1-15 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400

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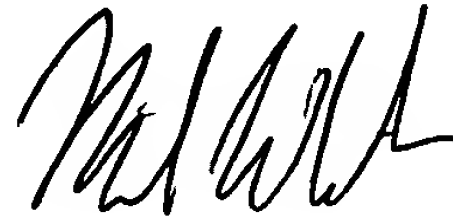
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(fax: 703-787-7557; email: clyde@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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## **APPENDIX A**